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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,452	12/14/2003	Stanislav M. Bobrovskiy	109905-130792	3079
60380	7590	07/17/2006		EXAMINER
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			ART UNIT	PAPER NUMBER
				2167

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/736,452	BOBROVSKIY ET AL.	
	Examiner	Art Unit	
	Kuen S. Lu	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 14 December 2003.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-24 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-24 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 14 December 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 1/10/05 & 3/27/06.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

1. The Action is responsive to Applicant's Application filed December 14, 2003. Claims 1-24 are pending.

Information Disclosure Statement

2. The information disclosure statements submitted January 10, 2005 and March 27, 2006 were filed before the mailing date of the first office action. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered and corresponding PTO-1449s are signed electronically and attached.

Drawings

3. The drawings filed December 14, 2003 are in compliance with 37 CFR 1.84 and accepted.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. § 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

- 4.1. Claims 1-11 and 13-24 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

As set forth in MPEP 2106 (II) (A):

The claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at 1373, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); In re Ziegler, 992, F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)).

Accordingly, a complete disclosure should contain some indication of the practical application for the claimed invention, i.e., why the applicant believes the claimed invention is useful.

Apart from the utility requirement of 35 U.S.C. 101, usefulness under the patent eligibility standard requires significant functionality to be present to satisfy the useful result aspect of the practical application requirement. See *Arrhythmia*, 958 F.2d at 1057, 22 USPQ2d at 1036. Merely claiming nonfunctional descriptive material stored in a computer-readable medium does not make the invention eligible for patenting. For example, a claim directed to a word processing file stored on a disk may satisfy the utility requirement of 35 U.S.C. 101 since the information stored may have some “real world” value. However, the mere fact that the claim may satisfy the utility requirement of 35 U.S.C. 101 does not mean that a useful result is achieved under the practical application requirement. The claimed invention as a whole must produce a “useful, concrete and tangible” result to have a practical application.

As per claims 1-11 and 13-23, the claimed invention is not supported by either an asserted or a well-established utility by simply performing the steps such as receiving data streams, creating virtual file within a container file, conditionally storing data of the data streams temporarily, increasing buffer size and describing file descriptor data structure. The claims produce no useful result and are lack of patentable utility. For example, at claims 1 and 13, the steps end at “determining a container file size” if the container size is within a predetermined range of a size.

Furthermore, Claims 13-24 are directed to a machine readable medium. However, the claimed “machine readable medium” comprises wireless telecommunication signals and carrier waves, forms of energy. As forms of energy, the signals and waves are not a matter, composition of matter or product; and do not fall within any one of categories of patentable subject matter. For further rejecting the claims under 35 USC §103,

Examiner interprets “machine readable medium” as “machine readable storage medium”.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. § 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5.1. Claims 1-24 are also rejected under 35 U.S.C. § 112, first paragraph. Specifically, since the claimed invention as described in claims 1 and 13 is directed to non-statutory subject matter or not supported by either an asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

6. The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6.1. Claims 1 and 13 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 1, it recites a phrase “determining a container file size” which is unclear whether the “a container file” is the “a container file” recited in “A method … within a container file, the method comprising:” or a newly declared “a container file”. Further, it recites “temporarily storing additional data … if the container file size …” where “the

“container” is ambiguous on which one of the two “a container file” previously recited in the claim.

As per claim 13, it recites determining a container file size” which is unclear whether the “a container file” is the “a container file” recited in “creating a container file” or a newly declared “a container file”. Further, it recites “temporarily storing additional data ... if the container file size ...” where “the container” is ambiguous on which one of the two “a container file” previously recited in the claim.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7.1. Claims 1-11 and 12-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Plourde, JR. et al. (U.S. Patent Application 2003/0110504, hereafter “Plourde”) in view of Korst (U.S. Patent 6,205,525).

As per claim 1, Plourde teaches “A method of storing streamed presentation data within a container file” (See Page 10, [0088] where FAT file contains information about media content instance files);

"receiving one or more data streams from each of one or more presentation sources within a presentation" (See Page 7, [0067]-[0069] where media contents are received from providers via network interface and received contents are processed and stored on storage device);

"creating within the container file, a virtual file for each of the one or more presentation sources" (See Fig. 3C and Page 10, [0088] where FAT file entry describes information about media content instance files, such as physical locations); and

"temporarily storing first data associated with a first data stream of a first presentation source in association with a first virtual file corresponding to the presentation source" (See Page 11, [0089] where clusters for temporarily buffered media content instance files are stored in time shift buffer space).

Plourde does not explicitly teach "determining a container file size", although Plourde teaches setting a buffer size capacity and tracking disk space usage used for the time shift buffer at Page 12, [0097].

However, Korst teaches "determining a container file size" (See col. 7, lines 17-23 where the scheduler of a data streams supplying system determines how many active streams and calculates the size of data block to be read in the following sweeping operation).

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention was made to combine the teaching of Korst with Plourde reference by tracking duration of time shift buffer and calculating buffering rate to determine the buffer capacity size because both references are directed to media content delivery and

the combined teaching of the references would have made Plourde's buffering mechanisms for video recording and delivery more efficient due to more accurately calculated and determined buffer size.

The combined teaching of the Korst and Plourde references further teaches "temporarily storing additional data from the first data stream in place of at least a portion of the first data if the container file size is within a predetermined range of an identified maximum buffer size" (See Plourde: Page 11, [0090] where media content stored in the clusters of time shift buffer is overwritten).

As per claim 13, Plourde teaches "A machine readable storage medium having stored thereon machine executable instructions, which when executed operate to implement the method" (See Fig. 3A and Page 7, [0069] where processor, storage, memory and applications are implemented to perform media contents receiving and processing) comprising:

"receiving one or more data streams from each of one or more presentation sources within a presentation" (See Page 7, [0067]-[0069] where media contents are received from providers via network interface and received contents are processed and stored on storage device);

"creating within a container file, a virtual file for each of the one or more presentation sources" (See Fig. 3C and Page 10, [0088] where FAT file entry describes information about media content instance files, such as physical locations); and

"temporarily storing first data associated with a first data stream of a first presentation source in association with a first virtual file corresponding to the presentation source" (See Page 11, [0089] where clusters for temporarily buffered media content instance files are stored in time shift buffer space).

Plourde does not explicitly teach "determining a container file size", although Plourde teaches setting a buffer size capacity and tracking disk space usage used for the time shift buffer at Page 12, [0097].

However, Korst teaches "determining a container file size" (See col. 7, lines 17-23 where the scheduler of a data streams supplying system determines how many active streams and calculates the size of data block to be read in the following sweeping operation).

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention was made to combine the teaching of Korst with Plourde reference by tracking duration of time shift buffer and calculating buffering rate to determine the buffer capacity size because both references are directed to media content delivery and the combined teaching of the references would have made Plourde's buffering mechanisms for video recording and delivery more efficient due to more accurately calculated and determined buffer size.

The combined teaching of the Korst and Plourde references further teaches "temporarily storing additional data from the first data stream in place of at least a

portion of the first data if the container file size is within a predetermined range of an identified maximum buffer size" (See Plourde: Page 11, [0090] where media content stored in the clusters of time shift buffer is overwritten).

As per claims 2 and 14, the combined teaching of the Korst and Plourde references further teaches "the additional data from the first data stream is stored in place of at least a portion of the first data if the container file size is equal to or exceeds the identified maximum buffer size" (See Plourde: Page 11, [0090] where the media content stored in the clusters of time shift buffer is overwritten and deleted, note buffering algorithms are applied when incoming data stream size is greater than that of free space).

As per claims 3 and 15 the combined teaching of the Korst and Plourde references further teaches the following:

"temporarily storing second data associated with a second data stream of the first presentation source in association with the first virtual file" (See Plourde: Page 11, [0089] where succeeding clusters for temporarily buffered media content instance files are streamed and stored in time shift buffer space); and

"temporarily storing additional data from the second data stream in place of at least a portion of the second data stored in association with the first virtual file if the container file size is within the predetermined range of the identified maximum buffer size" (See Plourde: Page 11, [0090] where the media content stored in the clusters of time shift

buffer is overwritten and deleted, note buffering algorithms are applied when subsequent incoming data stream size is greater than that of free space).

As per claims 4 and 16, the combined teaching of the Korst and Plourde references further teaches “rendering one of the first and second data streams in real-time contemporaneous with the storing of at least one of the first and second data streams” (See Plourde: Page 5, [0052] and Page 10, [0085] wherein real-time operating system environment multiple simultaneous data transfer operations for moving media content from cache to storage, and receiving new content and storing in cache are effectively orchestrated).

As per claims 5 and 17 the combined teaching of the Korst and Plourde references further teaches the following:

“temporarily storing data associated with a third data stream of a second presentation source in association with a second virtual file” (See Plourde: Page 11, [0089] where succeeding clusters for temporarily buffered media content instance files are streamed and stored in time shift buffer space); and

“temporarily storing additional data from the third data stream in place of at least a portion of the data stored in association with the second virtual file if the container file size is within the predetermined range of the identified maximum buffer size” (See Plourde: Page 11, [0090] where the media content stored in the clusters of time shift

buffer is overwritten and deleted, note buffering algorithms are applied when subsequent incoming data stream size is greater than that of free space).

As per claims 6 and 18, the combined teaching of the Korst and Plourde references further teaches “the maximum buffer size is proportional to an amount of time indicated via a user interface” (See Plourde: Page 12, [0097] where capacity of time shift buffer is assumed and estimated based on duration of media content instance time, for example 3-4 hours).

As per claims 7 and 19, the combined teaching of the Korst and Plourde references further teaches “the maximum buffer size is dynamically increased during the storing of data from the first data stream” (See Plourde: Page 12, [0097] where time shift buffer size is set and free space is tracked, and Korst: col. 9, lines 35-43 where number of active streams is increased and block size is adapted).

As per claims 8 and 20, the combined teaching of the Korst and Plourde references further teaches “the first data and additional data are stored in a native packet format prior to a decoding process” (See Plourde: Page 6, [0063] where compressed audio and video streams are produced in accordance with the syntax and semantics of a designated audio and video coding method).

As per claims 9 and 21 the combined teaching of the Korst and Plourde references further teaches the following:

“at least a first data block” (See Korst: col. 7, lines 14-15 where blocks of data are read, including the first one); and

“a file descriptor block containing at least a seek index and a seek index granularity, wherein the seek index indicates a plurality of equally distributed data blocks within the corresponding virtual file and the granularity indicates a size for each of the data blocks”

(See Plourde: Fig. 3C, Page 10, [0088] and Page 15, [0110] where FAT file entry describes information about media content instance files, such as physical locations and filter is provided to user to seek media content for contemporaneous viewing).

As per claims 10 and 22, the combined teaching of the Korst and Plourde references further teaches “the additional data is stored in place of the first data beginning with the first data block and continuing with successive data blocks of the first virtual file” (See Plourde: Page 11, [0089] where succeeding clusters for temporarily buffered media content instance files are streamed and stored in time shift buffer space).

As per claims 11 and 23, the combined teaching of the Korst and Plourde references further teaches “if the container file size is within the predetermined range of the identified maximum buffer size, the seek index granularity is increased so as to increase data block size without changing the number of seek index entries” (See Plourde: Page

12, [0097] where time shift buffer size is set and free space is tracked, and Korst: col. 9, lines 35-43 where number of active streams is increased and block size is adapted).

Allowable Subject Matter

8. Claims 12 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten to overcome the rejections(s) under 35 U.S.C. § 101 and 35 U.S.C. § 112, and in independent form including all of the limitations of the base claim and any intervening claims.

9. The prior art made of record

- A. U.S. Patent Application 2003/0110504
- B. U.S. Patent No. 6,205,525

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- C. U.S. Patent Application 2004/0193648
- D. U.S. Patent No. 6,449,653
- E. U.S. Patent No. 5,933,385

Contact Information

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuen S Lu whose telephone number is (571) 272-4114. The examiner can normally be reached on Monday-Friday (8:00 am-5:00 pm). If attempts to reach the examiner by telephone pre unsuccessful, the examiner's Supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for Page 13 published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 886-217-9197 (toll-free).

Kuen S. Lu

Patent Examiner, Art Unit 2167

July 11, 2006